

10/8/03

Access DB# 105599

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Wayne Lange Examiner #: 60603 Date: 10-8-03
 Art Unit: 1754 Phone Number 308-0248 Serial Number: 10/052225
 Mail Box and Bldg/Room Location: C13-9D17 Results Format Preferred (circle) PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Ammonia Decomposition Catalysts
 Inventors (please provide full names): Shigeru Nojima; Rie Tatemura;
Kouzo Hiroshima-shi
 Earliest Priority Filing Date: 6-8-94

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

*Please do a litigation search
 for U.S. Patent 5,679,313 (for
 Reissue application 4481/052225)*

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Searcher: <u>W. Lange</u>	Type of Search	Vendors and cost where applicable
Searcher Phone: _____	NA Sequence (#) _____	STN _____
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Date Searcher Picked Up: <u>10/8/03</u>	Structure (#) _____	Questel/Orbit <u>33.42</u>
Date Completed: <u>12/8/03</u>	Bibliographic _____	Dr. Link _____
Searcher Prep & Review Time: <u>2</u>	Litigation <input checked="" type="checkbox"/>	Lexis/Nexis <u>40.00</u>
Clerical Prep Time: _____	Fulltext _____	Sequence Systems _____
Online Time: <u>6</u>	Patent Family _____	WWW/Internet _____
	Other _____	Other (specify) _____



STIC Search Report

EIC 1700

STIC Database Tracking Number: 105599

**TO: Wayne Langel
Location: CP3 9D17
Art Unit : 1754
October 8, 2003**

Case Serial Number: 10/052225

**From: Kendra Mellerson
Location: EIC 1700
CP3/4-3D62
Phone:308-4483**

Kendra.Mellerson@uspto.gov

Search Notes

No Cases Reported

Current session 08/10/2003

(C) QUESTEL 1994

QUESTEL.ORBIT (TM) 1998

08/10/03 17*30*50

Last connection: 06/10/03 20*46*03

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Query/Command : FILE PLUSPAT

QUESTEL - Time in minutes : 0,62

The cost estimation below is based on Questel's
standard price list

Estimated cost :	0.57 USD
Cost estimated for the last database search :	0.57 USD
Estimated total session cost :	0.57 USD

Selected file: PLUSPAT

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New Patent Citation Commands & FAM Citation Report - see INFO PATCITE

Last update of file: 2003/10/01 (YYYY/MM/DD) 2003-39/UP (basic update)

Search statement 1

Query/Command : US5679313/PN

** SS 1: Results 1

Search statement 2

Query/Command : PRT FULL NONSTOP LEGALALL

1/1 PLUSPAT - ©QUESTEL-ORBIT

PN - US5679313 A 19971021 [US5679313]

TI - (A) Ammonia decomposition catalysts

PA - (A) MITSUBISHI HEAVY IND LTD (JP)

PA0 - Mitsubishi Jukogyo Kabushiki Kaisha, Tokyo [JP]
IN - (A) NOJIMA SHIGERU (JP); TOKUYAMA RIE (JP); IIDA KOUZO (JP)
AP - US47205795 19950606 [1995US-0472057]
PR - JP12599194 19940608 [1994JP-0125991]
 JP12599294 19940608 [1994JP-0125992]
 US47205795 19950606 [1995US-0472057]
IC - (A) C01B-003/04
EC - B01D-053/86F4
 B01J-029/04
 B01J-029/06
 B01J-037/02M6
PCL - ORIGINAL (O) : 423237000; CROSS-REFERENCE (X) : 423351000 423658200
DT - Corresponding document; Intellectual family
CT - US5338715; DE4020914; JP53-132465; JP02107265
STG - (A) United States patent
AB - An ammonia decomposition catalyst wherein a first catalyst having a crystalline silicate w
 represented by the formula in terms of molar ratio of oxides as dehydrated: $(1+/-0.8)R_2O$.
 $[aM_2O_3.bM'O.cAl_2O_3].ySiO_2$, wherein R denotes an alkaline metal ion and/or hydrogen
 denotes a VIII Group element, rare earth element, titanium, vanadium, chromium, niobium
 antimony or gallium, M' denotes magnesium, calcium, strontium or barium, $a \geq 0$, $20 > b >$
 $a+c=1$, $3000 > y > 11$ or a specific porous material as a carrier and iridium or a noble metal a
 active metal is present together with or covered with a second catalyst having at least one
 element selected from the group consisting of titanium, vanadium, tungsten and molybden
 necessary, as well as a method of using the same.

 I / I LGST - ©LEGSTAT

PN - US 5679313 [US5679313]
AP - US 472057/95 19950606 [1995US-0472057]
DT - US-P
ACT - 19950606 US/AE-A
 APPLICATION DATA (PATENT)
 US 472057/95 19950606 [1995US-0472057]

 19950606 US/AS02
 ASSIGNMENT OF ASSIGNOR'S INTEREST
 MITSUBISHI JUKOGYO KABUSHIKI KAISHA 5-1, MARUNOUCHI 2-CHOME
 CHIYODA-KU, TOKYO, * NOJIMA, SHIGERU : 19950518; TOKUYAMA, RIE : 1995
 IIDA, KOUZO : 19950518

 19971021 US/A
 PATENT

 19980811 US/CC
 CERTIFICATE OF CORRECTION

 20020521 US/RF
 REISSUE APPLICATION FILED

20020116
UP - 2002-22

1/1 CRXX - ©CLAIMS/RRX

PN - 5,679,313 A 19971021 [US5679313]
PA - Mitsubishi Jukogyo K K JP
ACT - 20020116 REISSUE REQUESTED
ISSUE DATE OF O.G.: 20020521
REISSUE REQUEST NUMBER: 10/052225
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 1754

Reissue Patent Number:

Query/Command : FILE INPADOC

PLUSPAT - Time in minutes : 0,38
The cost estimation below is based on Questel's
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Estimated cost :	0.88 USD
Records displayed and billed :	1
Estimated cost :	1.25 USD
Cost estimated for the last database search :	2.13 USD
Estimated total session cost :	2.70 USD

LGST - Time in minutes : 0,02
The cost estimation below is based on Questel's
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Estimated cost :	0.60 USD
Legal-Status informations :	1
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Estimated total session cost :	3.82 USD

CRXX - Time in minutes : 0,09
The cost estimation below is based on Questel's
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Estimated cost :	0.15 USD
Records displayed and billed :	1
Estimated cost :	5.30 USD
Legal-Status informations :	1
Estimated cost :	0.50 USD
Cost estimated for the last database search :	5.95 USD
Estimated total session cost :	9.77 USD

LITA - Time in minutes : 0,01
The cost estimation below is based on Questel's
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Estimated cost :	0.02 USD
Cost estimated for the last database search :	0.02 USD
Estimated total session cost :	9.79 USD

Selected file: INPADOC

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For information on content, (...)INFO INPD.

Search statement 1

Query/Command : FAM US5679313/PN

1 Patent Groups

** SS 1: Results 12

Search statement 2

Query/Command : FAMSTATE NONSTOP

1 / 12 INPADOC - ©INPADOC

PN - AT 235301 E 20030415 [ATE235301]
TI - VERWENDUNG VON KATALYSATOREN ZUR ZERSETZUNG VON AMMONIAK
IN - NOJIMA SHIGERU; TOKUYAMA RIE; IIDA KOUZO
PA - MITSUBISHI HEAVY IND LTD [JP]
AP - AT 95108809/95-EP 19950608 [1995EP-0108809]
PR - JP 125991/94-A 19940608 [1994JP-0125991]
JP 125992/94-A 19940608 [1994JP-0125992]
IC - B01D-053/86; B01J-023/46; B01J-023/64; B01J-029/04; B01J-029/06; B01J-029/068; B01J-029/076

1 / 2 LEGALI - ©LEGSTAT

PN - AT 235301 [ATE235301]
DT - AT-R
ACTE - 20030415 AT/REF-P
CORRESPONDS TO EP-PATENT
(EP 686423 20030326 [EP-686423])
UP - 2003-19

2 / 2 LEGALI - ©LEGSTAT

PN - EP 686423 [EP-686423]
AP - EP 95108809/95 19950608 [1995EP-0108809]
DT - EP-P
ACTE - 19950608 EP/AE-A

EP-APPLICATION
EP 95108809/95 19950608 [1995EP-0108809]

19951213 EP/AK-A2 [+]
DESIGNATED CONTRACTING STATES IN AN APPLICATION WITHOUT SEARCH
REPORT:
AT DE IT NL

19951213 EP/A2 [+]
PUBLICATION OF APPLICATION WITHOUT SEARCH REPORT

19970702 EP/AK-A3 [+]
DESIGNATED CONTRACTING STATES IN A SEARCH REPORT:
AT DE IT NL

19970702 EP/A3 [+]
SEPARATE PUBLICATION OF THE SEARCH REPORT (ART. 93)

19970917 EP/17P [+]
REQUEST FOR EXAMINATION FILED
970718

19971029 EP/17Q [+]
FIRST EXAMINATION REPORT
970915

20020828 EP/RIC1
CLASSIFICATION (CORRECTION)
7B 01D 53/86 A, 7B 01J 23/46 B, 7B 01J 23/64 B, 7B 01J 29/04 B, 7B 01J 29/06 B, 7B 0
29/068 B, 7B 01J 29/076 B

20020828 EP/RTI1
TITLE (CORRECTION)
USE OF AMMONIA DECOMPOSITION CATALYSTS

20030326 EP/AK-B1 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A PATENT SPECIFICAT
AT DE IT NL

20030326 EP/B1 [+]
PATENT SPECIFICATION

20030326 EP/REF-R [+]
IN AUSTRIA REGISTERED AS:
(AT 235301 20030415 [ATE235301])

20030430 EP/REF-P
CORRESPONDS TO:
(DE 69530024 20030430 [DE69530024])

UP - 2003-19

2 / 12 INPADOC - ©INPADOC

PN - CA 2151229 AA 19951209 [CA2151229]
TI - AMMONIA DECOMPOSITION CATALYSTS
LA - ENG
IN - NOJIMA SHIGERU [JP]; TOKUYAMA RIE [JP]; IIDA KOUZO [JP]
PA - MITSUBISHI HEAVY IND LTD [JP]
AP - CA 2151229/95-A 19950607 [1995CA-2151229]
PR - JP 125991/94-A 19940608 [1994JP-0125991]
 JP 125992/94-A 19940608 [1994JP-0125992]
 US 472057/95-A 19950606 [1995US-0472057]
IC - B01J-023/46; B01D-053/58

3 / 12 INPADOC - ©INPADOC

PN - CA 2151229 C 19990105 [CA2151229]
TI - AMMONIA DECOMPOSITION CATALYSTS
LA - ENG
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PR - JP 125991/94-A 19940608 [1994JP-0125991]
 JP 125992/94-A 19940608 [1994JP-0125992]
 US 472057/95-A 19950606 [1995US-0472057]
IC - B01J-023/40; B01J-029/068; B01J-029/076; B01J-023/46; B01D-053/58; B01J-023/64; B01J-053/86

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PN - DE 69530024 C0 20030430 [DE69530024]
TI - VERWENDUNG VON KATALYSATOREN ZUR ZERSETZUNG VON AMMONIAK
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PA - MITSUBISHI HEAVY IND LTD [JP]
AP - DE 69530024/95-A 19950608 [1995DE-6030024]
PR - JP 125991/94-A 19940608 [1994JP-0125991]
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IC - B01D-053/86; B01J-023/46; B01J-023/64; B01J-029/04; B01J-029/06; B01J-029/068; B01J-029/076

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PN - DE 69530024 [DE69530024]
DT - DE-P
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UP - (EP 686423 20030430 [EP-686423])
2003-18

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PN - EP 686423 [EP-686423]
AP - EP 95108809/95 19950608 [1995EP-0108809]
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ACTE - 19950608 EP/AE-A
EP-APPLICATION
EP 95108809/95 19950608 [1995EP-0108809]

19951213 EP/AK-A2 [+]
DESIGNATED CONTRACTING STATES IN AN APPLICATION WITHOUT SEARCH
REPORT:
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19970702 EP/AK-A3 [+]
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29/068 B, 7B 01J 29/076 B

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5 / 12 INPADOC - ©INPADOC

PN - EP 686423 B1 20030326 [EP-686423]
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IC - B01D-053/86; B01J-023/46; B01J-023/64; B01J-029/04; B01J-029/06; B01J-029/068; B01J-029/076
DS - AT* DE* IT* NL*

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PN - AT 235301 [ATE235301]
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(EP 686423 20030326 [EP-686423])
UP - 2003-19

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PN - DE 69530024 [DE69530024]
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(EP 686423 20030430 [EP-686423])
UP - 2003-18

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PN - EP 686423 [EP-686423]
AP - EP 95108809/95 19950608 [1995EP-0108809]

DT - EP-P

ACTE -

19950608 EP/AE-A
EP-APPLICATION
EP 95108809/95 19950608 [1995EP-0108809]

19951213 EP/AK-A2 [+]
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29/068 B, 7B 01J 29/076 B

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IN AUSTRIA REGISTERED AS:
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6 / 12 INPADOC - ©INPADOC

PN - EP 686423 A2 19951213 [EP-686423]
TI - AMMONIA DECOMPOSITION CATALYSTS
LA - ENG
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PR - JP 125991/94-A 19940608 [1994JP-0125991]
JP 125992/94-A 19940608 [1994JP-0125992]
US 472057/95-A 19950606 [1995US-0472057]
IC - B01D-053/86; B01J-023/40; B01J-023/46; B01J-023/64; B01J-029/04; B01J-029/068; B01J-029/076
DS - AT* DE* IT* NL*

1 / 3 LEGALI - ©LEGSTAT

PN - AT 235301 [ATE235301]
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ACTE - 20030415 AT/REF-P
CORRESPONDS TO EP-PATENT
(EP 686423 20030326 [EP-686423])
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2 / 3 LEGALI - ©LEGSTAT

PN - DE 69530024 [DE69530024]
DT - DE-P
ACTE - 20030430 DE/REF-P
CORRESPONDS TO
(EP 686423 20030430 [EP-686423])
UP - 2003-18

3 / 3 LEGALI - ©LEGSTAT

PN - EP 686423 [EP-686423]
AP - EP 95108809/95 19950608 [1995EP-0108809]
DT - EP-P
ACTE - 19950608 EP/AE-A
EP-APPLICATION
EP 95108809/95 19950608 [1995EP-0108809]

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29/068 B, 7B 01J 29/076 B

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IN AUSTRIA REGISTERED AS:
(AT 235301 20030415 [ATE235301])

20030430 EP/REF-P
CORRESPONDS TO:
(DE 69530024 20030430 [DE69530024])

UP - 2003-19

PN - EP 686423 A3 19970702 [EP-686423]
TI - AMMONIA DECOMPOSITION CATALYSTS
LA - ENG
IN - NOJIMA SHIGERU [JP]; TOKUYAMA RIE [JP]; IIDA KOUZO [JP]
PA - MITSUBISHI HEAVY IND LTD [JP]
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JP 125992/94-A 19940608 [1994JP-0125992]
US 472057/95-A 19950606 [1995US-0472057]
IC - B01D-053/86; B01J-023/40; B01J-023/46; B01J-023/64; B01J-029/04; B01J-029/068; B01J-029/076
DS - AT* DE* IT* NL*

1 / 3 LEGALI - ©LEGSTAT

PN - AT 235301 [ATE235301]
DT - AT-R
ACTE - 20030415 AT/REF-P
CORRESPONDS TO EP-PATENT
(EP 686423 20030326 [EP-686423])
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2 / 3 LEGALI - ©LEGSTAT

PN - DE 69530024 [DE69530024]
DT - DE-P
ACTE - 20030430 DE/REF-P
CORRESPONDS TO
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3 / 3 LEGALI - ©LEGSTAT

PN - EP 686423 [EP-686423]
AP - EP 95108809/95 19950608 [1995EP-0108809]
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EP-APPLICATION
EP 95108809/95 19950608 [1995EP-0108809]

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20030430 EP/REF-P
CORRESPONDS TO:
(DE 69530024 20030430 [DE69530024])

UP - 2003-19

8 / 12 INPADOC - ©INPADOC

PN - JP 3132960 B2 20010205 [JP3132960]
IN - NOJIMA SHIGERU; IIDA KOZO
PA - MITSUBISHI HEAVY IND LTD
AP - JP 125992/94-A 19940608 [1994JP-0125992]
PR - JP 125992/94-A 19940608 [1994JP-0125992]
US 472057/95-A 19950606 [1995US-0472057]

IC - B01J-029/44; B01D-053/86

9 / 12 INPADOC - ©INPADOC

PN - JP 3132959 B2 20010205 [JP3132959]
IN - NOJIMA SHIGERU; IIDA KOZO
PA - MITSUBISHI HEAVY IND LTD
AP - JP 125991/94-A 19940608 [1994JP-0125991]
PR - JP 125991/94-A 19940608 [1994JP-0125991]
US 472057/95-A 19950606 [1995US-0472057]
IC - B01J-029/44; B01D-053/86; B01J-023/652; B01J-027/053; B01J-029/035; B01J-029/076;
029/16; B01J-029/26

10 / 12 INPADOC - ©INPADOC

PN - JP 7328437 A2 19951219 [JP07328437]
TI - AMMONIA DECOMPOSITION CATALYST
IN - NOJIMA SHIGERU; IIDA KOZO
PA - MITSUBISHI HEAVY IND LTD
AP - JP 125991/94-A 19940608 [1994JP-0125991]
PR - JP 125991/94-A 19940608 [1994JP-0125991]
US 472057/95-A 19950606 [1995US-0472057]
IC - B01J-023/40; B01D-053/86; B01J-023/64; B01J-023/648; B01J-023/652; B01J-029/076; B
035/04

11 / 12 INPADOC - ©INPADOC

PN - JP 7328438 A2 19951219 [JP07328438]
TI - CATALYST FOR DECOMPOSITION OF AMMONIA
IN - NOJIMA SHIGERU; IIDA KOZO
PA - MITSUBISHI HEAVY IND LTD
AP - JP 125992/94-A 19940608 [1994JP-0125992]
PR - JP 125992/94-A 19940608 [1994JP-0125992]
US 472057/95-A 19950606 [1995US-0472057]
IC - B01J-023/40; B01D-053/86; B01J-023/64; B01J-023/648; B01J-023/652; B01J-027/053; B
029/12; B01J-029/24; B01J-029/74; B01J-029/88; B01J-035/04

12 / 12 INPADOC - ©INPADOC

PN - US 5679313 A 19971021 [US5679313]
TI - AMMONIA DECOMPOSITION CATALYSTS
IN - NOJIMA SHIGERU [JP]; TOKUYAMA RIE [JP]; IIDA KOUZO [JP]
PA - MITSUBISHI HEAVY IND LTD [JP]
AP - US 472057/95-A 19950606 [1995US-0472057]
PR - US 472057/95-A 19950606 [1995US-0472057]

JP 125992/94-A 19940608 [1994JP-0125992]

JP 125991/94-A 19940608 [1994JP-0125991]

IC - C01B-003/04

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PN - US 5679313 [US5679313]

AP - US 472057/95 19950606 [1995US-0472057]

DT - US-P

ACTE - 19950606 US/AE-A

APPLICATION DATA (PATENT)

US 472057/95 19950606 [1995US-0472057]

19950606 US/AS02

ASSIGNMENT OF ASSIGNOR'S INTEREST

MITSUBISHI JUKOGYO KABUSHIKI KAISHA 5-1, MARUNOUCHI 2-CHOME

CHIYODA-KU, TOKYO, * NOJIMA, SHIGERU : 19950518; TOKUYAMA, RIE : 1995

IIDA, KOUZO : 19950518

19971021 US/A

PATENT

19980811 US/CC

CERTIFICATE OF CORRECTION

20020521 US/RF

REISSUE APPLICATION FILED

20020116

UP - 2002-22

PATNO IS 5679313

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1. 5679313 , October 21, 1997 , Ammonia decomposition catalysts, Nojima, Shigeru, Hiroshima, JP; Tokuyama, Rie, Hiroshima, JP; Iida, Kouzo, Hiroshima, JP, 472057 (08), Mitsubishi Jukogyo Kabushiki Kaisha, Tokyo, JP, June 6, 1995 - ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., MITSUBISHI JUKOGYO KABUSHIKI KAISHA 5-1, MARUNOUCHI 2-CHOME CHIYODA-KU, TOK YO JAPAN, Reel and Frame Number: 007513/0690

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UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

5679313

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October 21, 1997

Ammonia decomposition catalysts

REISSUE: January 16, 2002 - Reissue Application filed Ex. Gp.: 1754; Re. S.N. 10/052,225 (O.G. May 21, 2002)

CERT-CORRECTION: August 11, 1998 - a Certificate of Correction was issued for this patent

APPL-NO: 472057 (08)

FILED-DATE: June 6, 1995

GRANTED-DATE: October 21, 1997

5679313 OR 5,679,313

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